NITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS

P O Box 1450 Alexandria, Virgima 22313-1450 www.uspto.gov

NOTICE OF ALLOWANCE AND FEE(S) DUE

7590 03/23/2009

MCDERMOTT, WILL & EMERY 600 13th Street, N.W.

Washington, DC 20005-3096

EXAMINER ELAND, SHAWN

PAPER NUMBER

ARTHNIT 2188

DATE MAILED: 03/23/2009

APPLICATION NO. FILING DATE FIRST NAMED INVENTOR ATTORNEY DOCKET NO. CONFIRMATION NO 10/764.484 01/27/2004 Atsuhiro Mori 61282-059 6279

TITLE OF INVENTION: INFORMATION PROCESSING APPARATUS AND MEMORY ACCESS ARRANGING METHOD

APPLN, TYPE SMALL ENTITY ISSUE FEE DUE PUBLICATION FEE DUE PREV. PAID ISSUE FEE TOTAL FEE(S) DUE DATE DUE nonprovisional NO \$1510 \$300 \$1810 06/23/2009

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown

B. If the status above is to be removed, check box 5b on Part B -Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

or Fax (571)-273-2885

INSTRUCTIONS: This appropriate. All further c indicated unless correcte maintenance fee notificate	form should be used for correspondence includir d below or directed off ions	or trans ig the P ierwise	mitting the ISSU atent, advance or in Block 1, by (a	TE FEE and PUBLICAT ders and notification of a specifying a new corre	ION FEE (if requ maintenance fees v spondence address;	ired). I vill be ; and/o	Blocks 1 through 5 st mailed to the current r (b) indicating a sepa	nould be completed where correspondence address as rate "FEE ADDRESS" for
CURRENT CORRESPONDE	ny change of address)	Not Fee pap bay	Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.					
MCDERMOTT 600 13th Street, I Washington, DC			Certificate of Mailing or Transmission I hereby certify that this Fee(s) Transmital is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facstimile transmitted to the USPIO (21) 273-2888, on the date indicated between the Computer Compute					
								(Depositor's name)
								(Signature)
				L				(Date)
APPLICATION NO.	FILING DATE		FIRST NAMED INVEN		ATTORNEY DOCKET		RNEY DOCKET NO.	CONFIRMATION NO.
10/764,484	01/27/2004		Atsuhiro Mori		61282-059		6279	
TITLE OF INVENTION:								T
APPLN, TYPE	SMALL ENTITY	ISS	UE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSU	E FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO		\$1510	\$300	\$0		\$1810	06/23/2009
EXAMI	NER	1	ART UNIT	CLASS-SUBCLASS				
ELAND, S	SHAWN		2188	711-167000				
1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.863). Change of correspondence address for Change of Correspondence Address from PIOSB/123 Jauchard. The Address from PIOSB/123 Jauchard. The Address from Fee Address" indication for Pice Address" indication for PIOSB/124 Jauchard. THOSB/124 Fee 0.3622 or more recent) attached. Use of a Customer Number is required. 3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON PILASE NOTE: Unless an assignments is identified below no assignments.			tion form of a Customer E PRINTED ON	(1) the names of up to 3 registered patent attorneys 1 cagents OR, alternatively, (2) the name of a single firm flaving as a member a registered attorney or agents and the names of up to 2 registered patent attorneys or agents. If no name is 1 sited, no name will be printed. THE PATENT (print or type) data will appear on the patent. If an assignee is identified below, the document has been filed for 17 a substitute for filing an assignment.				
recordation as set forth (A) NAME OF ASSIG	ENEE			(B) RESIDENCE: (CITY	and STATE OR C	COUNT	TRY)	up entity 🖵 Government
4a. The following fee(s) are submitted: Issue Fee Publication Fee (No small entity discount permitted) Advance Order - # of Copies				A check is enclosed. Payment by credit car The Director is hereby overpayment, to Dept	rd. Form PTO-2038	is atta	sched. required fee(s), any de	
	SMALL ENTITY state	is. See 3	7 CFR 1.27.	b. Applicant is no lon				
interest as shown by the r	ecords of the United Sta	tes Pate	nt and Trademark	Office.	ик аррисан, а тед	istereu .	amoracy or agent; or ti	e assignee or other party in
Authorized Signature				Date				
Typed or printed name					Registration N			
This collection of informa an application. Confidenti submitting the completed this form and/or suggestic Box 1450, Alexandria, Vi Alexandria, Virginia 2231	ation is required by 37 C iality is governed by 35 application form to the ons for reducing this but irginia 22313-1450. DC (3-1450.	FR 1.31 U.S.C. USPTO rden, sho NOT S	1. The informatic 122 and 37 CFR D. Time will vary ould be sent to the SEND FEES OR (on is required to obtain or 1.14. This collection is es depending upon the indi- e Chief Information Offic COMPLETED FORMS T	retain a benefit by t timated to take 12 vidual case. Any co er, U.S. Patent and O THIS ADDRESS	the pub minutes omment Trader S. SEN	lic which is to file (and to complete, including is on the amount of tin mark Office, U.S. Depo D TO: Commissioner	by the USPTO to process) g gathering, preparing, and ne you require to complete utment of Commerce, P.O. for Patents, P.O. Box 1450.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS

PO Box 1450 Alexandria, Virgima 22313-1450 www.uspto.gov

DATE MAILED: 03/23/2009

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/764,484	01/27/2004	01/27/2004 Atsuhiro Mori		6279
75	90 03/23/2009	EXAMINER		
MCDERMOTT,	WILL & EMERY	ELAND, SHAWN		
600 13th Street, N.		ART UNIT	PAPER NUMBER	
Washington, DC 2	0005-3096	2188		

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 324 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 324 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

Notice of Allowability

Application No.	Applicant(s)
10/764,484	MORI, ATSUHIRO
Examiner	Art Unit
CHAWN ELAND	2100

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS. This application is subject to withdrawal from issue at the initiative

- of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.
- This communication is responsive to amendments made filed 12/31/08.
- 2. The allowed claim(s) is/are 1-7.
- 3. Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - b) ☐ Some* c) ☐ None of the:
 - 1. A Certified copies of the priority documents have been received.
 - 2. Certified copies of the priority documents have been received in Application No.
 - 3. Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
 - * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

- A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
- CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) Including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) hereto or 2) to Paper No./Mail Date
 - (b) including changes required by the attached Examiner's Amendment / Comment or in the Office action of

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6.

DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- 1. | Notice of References Cited (PTO-892)
- 2. Notice of Draftperson's Patent Drawing Review (PTO-948)
- Information Disclosure Statements (PTO/SB/08).
- Paper No./Mail Date
- 4. T Examiner's Comment Regarding Requirement for Deposit of Biological Material
- 5. Notice of Informal Patent Application
- Interview Summary (PTO-413), Paper No./Mail Date
- 7. T Examiner's Amendment/Comment
- 8. X Examiner's Statement of Reasons for Allowance
- 9. ☐ Other

The following is an examiner's statement of reasons for allowance:

In regard to claim 1, the prior art of record does not teach or suggest:

a clock generating device comprising a clock oscillating section generating a normal

clock signal to be supplied to be supplied to the second data input/output device, and a clock wait

control section generating a wait clock signal having a cycle which is integer times as much as

the normal clock signal has;

and an access arranging device causing the clock oscillating section to stop the normal

clock signal to the second data input/output device for one clock cycle,

causing the clock wait control section to supply the wait clock signal to the second data

input/output device.

not allowing the second data input/output device to access the data storing device for one

clock cycle,

executing the access of the first data input/output device for the one clock cycle when a

contention of the access of the first data input/output device for the one clock when a contention

of the access of the first data input/output device and the second data input/output device to the

data storing device is generated,

and starting the access of the second data input/output device after the access of the first

data input/output device for the one clock cycle is ended.

In regard to claim 5, the prior art of record does not teach:

Application/Control Number: 10/764,484

Art Unit: 2188

a clock generating device comprising a clock oscillating section generating a normal clock signal for supplying to the second data input/output device, and a clock wait control section generating a wait clock signal having a cycle which is integer times as much as the normal clock signal has,

providing the normal clock signal to the processor and the data input/output device; and providing the clock wait signal to cause the normal clock signal for the second data input/output device to be stopped for one clock cycle and not allowing the second data input/output device to access the data storing device for one clock cycle when a contention of the access of the first data input/output device and the second data input/output device to the data storing device is generated.

In regard to claims 2-4, & 6-7, the reasons for allowance were stated in the non-final rejection filed 10/01/08.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SHAWN ELAND whose telephone number is (571)270-1029. The examiner can normally be reached on MO - TH, & every other FR.

Art Unit: 2188

Examiner Info

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hyung Sough can be reached on (571) 272-6799. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Hyung S. Sough/ Supervisory Patent Examiner, Art Unit 2188 03/18/09 /Shawn Eland/ Examiner, Art Unit 2188 3/20/2009